PHENIX
WEEKLY PLANNING

12/11/2008

Don Lynch

Technical Support 2008

IR Configuration for remainder of shutdown

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

Run Position 10/20 – 10/31 <DONE>
(CM & MMS moved north WC west)

Station 1 south access 11/3-12/12 <Current IR Configuration>
(MMS moved south WC west)

Station 1 north access 12/15-12/31
(CM moved south, WC west)

East Carriage Install 1/2-1/15
(CM moved north, EC & WC opt.)

Run Position 1/16-1/19
(MMS moved north, EC & WC opt)

Ready for run 9 1/19-2/1
(MuID Collars Installed, EC & WC opt.)

Electrical Shutdown (CA panel rework) 12/11 AM

Technical Support 2008

Shutdown '08 Schedule

PHENIX

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

Station 1 south access 11/3-12/12 ⟷
(MMS moved south WC west)

Move MMS south 11/3 <DONE>

Install sta 1. S Scaffolds 11/4-11/7 <DONE>

HBD Installation (west) <DONE,>
(east) <DONE>

* Mechanical installation Done..Cabling testing & Commisioning continues until start up

MuTrigger FEE <DONE>
Sta 1 S chasis install

Sta 1S chasis 11/3-11/14 <DONE>
Water & air (2&3 S Done)

Install/test cards 10/2-12/12 ⟷
sta 2&3 N and sta 1, 2 & 3 S

Install Lead absorber 11/17-12/12 ⟷

Install FEE S rack platform <DONE>
And racks

FEE S Cabling & Testing 11/24-12/12 ⟷

MuTr sta 1 S Decaps 12/1-12/12 ⟷

Technical Support 2008

Shutdown '08 Schedule

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

Station 1 north access 12/15-12/31
(CM moved south, WC west)

Remove Sta 1 S 12/1-12/18
And Sta 2/3 N scaffolds

Move CM south 12/18

Install MMS lampshade 12/18-12/21

Install MMN lampshades 12/18-12/31

Install MMN Crossovers & supports

Continue HBD, MuTrigger FEE
& RPC prototype cabling & commissioning

RPC Factory Scope Increase review 12/18 (tent.)

Technical Support 2008

Shutdown '08 Schedule

PHENIX

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

East Carriage Install 1/2-1/15
(CM moved north, EC & WC opt.)

Install EC 1/2-1/15

Run Position 1/16-1/19
(MMS moved north, EC & WC opt)

Ready for run 9 1/19-2/1
(MuID Collars Installed, EC & WC opt.)

DC East/West Repairs 1/16-2/1

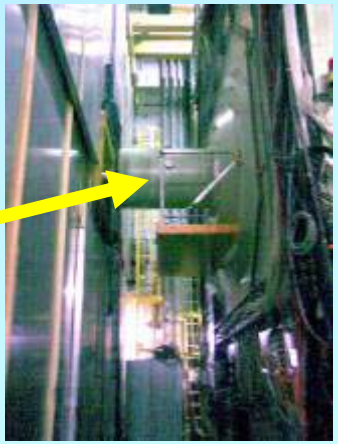
Install MuID Collars 1/19-1/21

Pink/Blue/White Sheets 1/16-2/1

Start watch shifts 1/27

Close Shield Wall 126-1/30

Cryo Start Up, Start Physics 2/1-2/18



Technical Support 2008

12/11/08

Shutdown '08 Schedule

PHENIX

Other On going Tasks

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

Fan Tray Maintenance (fill in)

RPC3 Prototype install (11/15-12/31)
(including assembly at factory,
Moving tunnel shielding, modify
Crystal palace & vapor barrier,
RPC3 install, rack, install
scintillators,services & testing)

RPC Factory Support

Dark Current test stand

Storage Racks with humid. Cntrl

Prep for 2009 Shutdown
(as time permits)

Technical Support 2008

Shutdown '08 Schedule

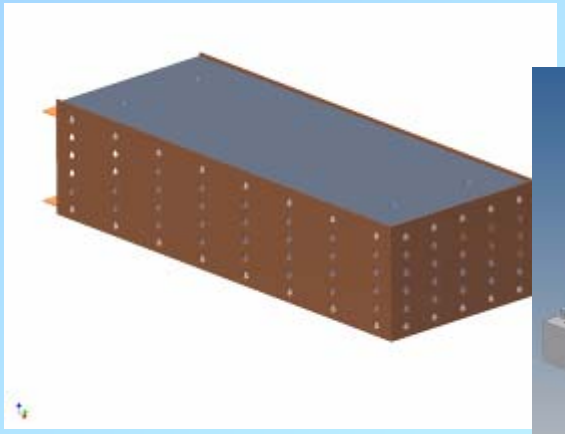
October	November	December	January
5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25

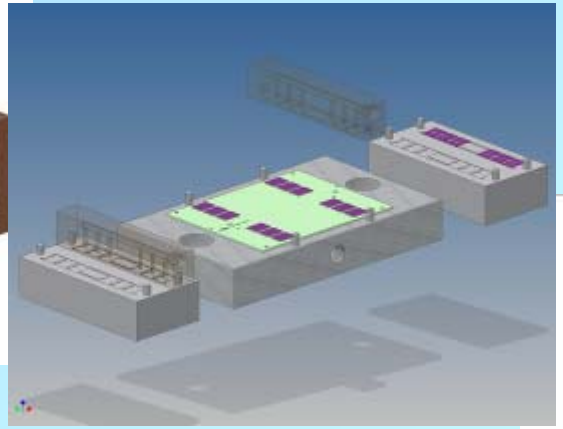
Rack room electronics, etc.

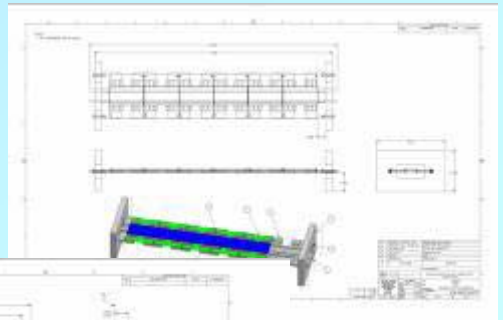
Build new storage 10/1-12/15
crates

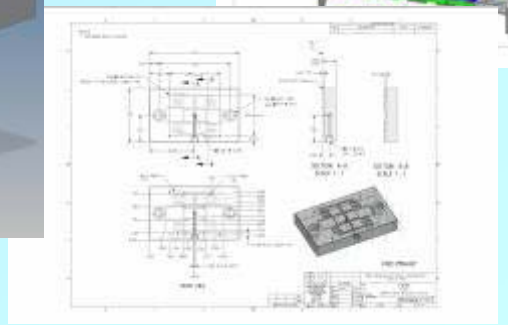
NCC prototype design support
HBD support
VTX fabrication tooling design
VTX installation design
FVTX design/engineering support

As Required



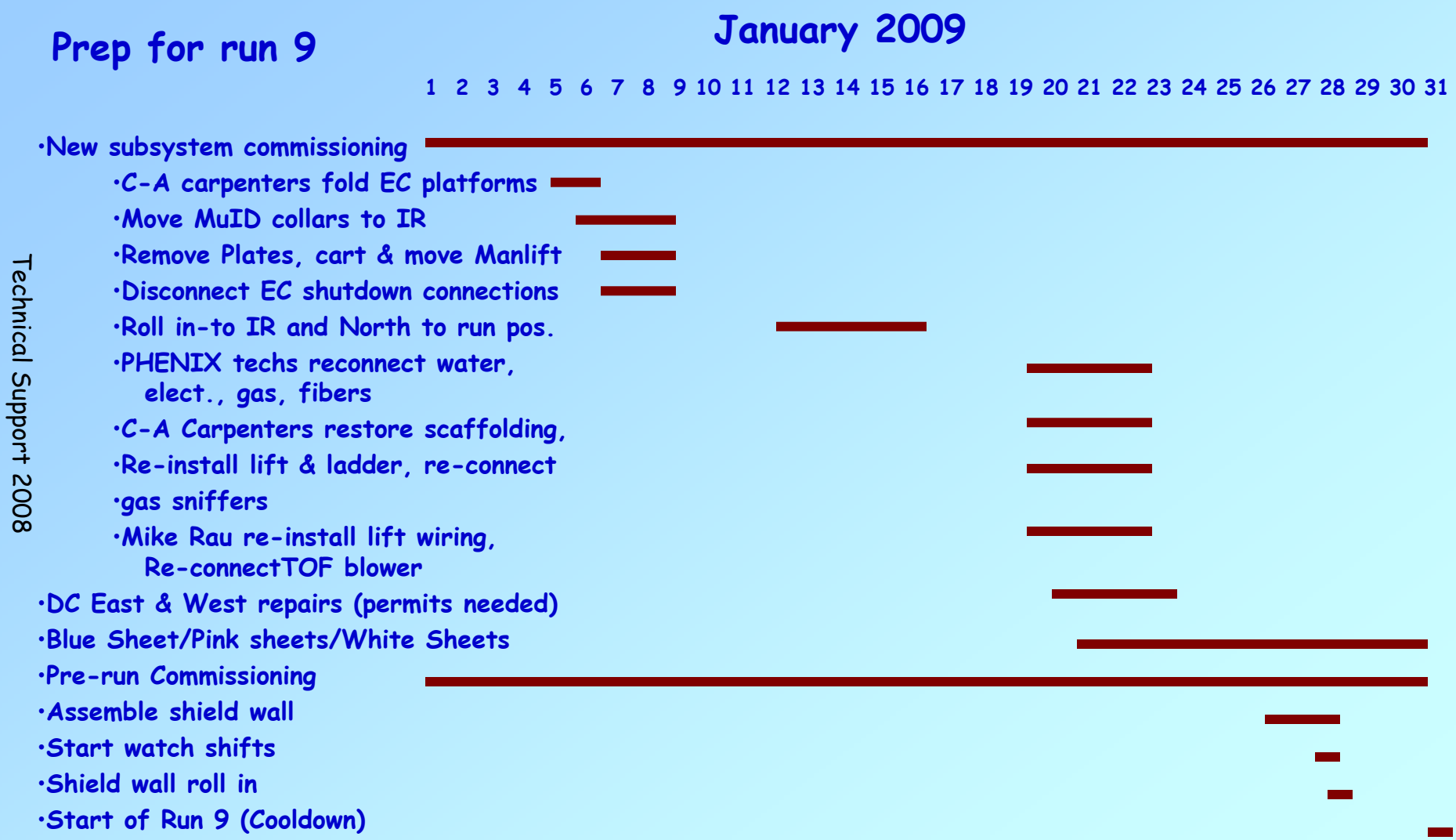






Run 9 Startup Schedule

Prep for run 9



Technical Support 2008

Electrical Tech Tasks

PHENIX

Here is a list of the important items required to be completed E&FI:

·Control Room Annunciator System – complete wiring and program the electronics for the additional 48 alarm window box unit. Frank & Paul – 2 days

·PHENIX Notifier Fire Alarm System – Tie in two wire communication network cable into the five (5) new racks (IR Muon Trigger racks North & South, 2 Rack Room Muon Trigger racks, Tunnel rack for RPC. Program the fire alarm panel to recognize these new racks). Frank & Paul-two days.

·Install and power the Gas Mixing House SF6 detector/monitor. Wire into the PHENIX Safety Monitor and control System (SMCS). Test and verify safety/alarm actions for the unit using R134A gas. Frank & Paul-two days.

·Energize the HBD heater and temperature monitor system. Re-test & verify heater control and pre-amp temperature readout points for HBD East and West. Frank, Paul & Mike Lenz-one day

·Connect the Remote Monitor & Control (RMC – ADAM System) communication cable into the five new racks. Pre-test control and readout functions for these racks prior to "PINK" sheet testing. Frank & Steve Boose-one day.

·Perform a full "dry" run of all SMCS logic actions prior to performance of the CAD witnessed "BLUE" sheet test. Frank & Paul-two days.

Lower Priority items:

·Troubleshoot and repair Muon Trigger optical data cables.

·Install and test temperature and flow interlock instruments for protection of the new Control Room Duct Heater.

Shutdown '08 Electrician Work

PHENIX

Technical Support 2008

* Run Power to new MuTrgr FEE racks on MMS. *by 10/31* *Wiring completed…temporary power to be provided for South FEE tests*

* Re-wire ToF Rack power distribution bucket in Gas Mixing House. This is to correct minor wiring errors. *Done. Mixing house UPS's installed and working.*

* Walk down PHENIX Electrical Distribution Panels/Breakers and update changes on the electrical one-line drawings. *Complete by 12/31.*

* Install power and signal cable tray (ceiling suspended) for new DCM rack row – north of existing DCM racks. *To Be Scheduled*

* Assist in signal and LV cable installation for MuTr/RPC upgrades as necessary. *Installation of RPC prototype rack needed..held up by tunnel shielding→held up by tunnel cran power → all to be resolved by end of next week*

* Repair Duct heaters for Control Room. *Temporary 15 KW Heater installed. To be completed?*

* Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.

* Remove existing 15KVA transformer and install 45KVA unit.

Lower priority; not required for run 9, to be scheduled when manpower available and operations & projects inconvenience are minimized

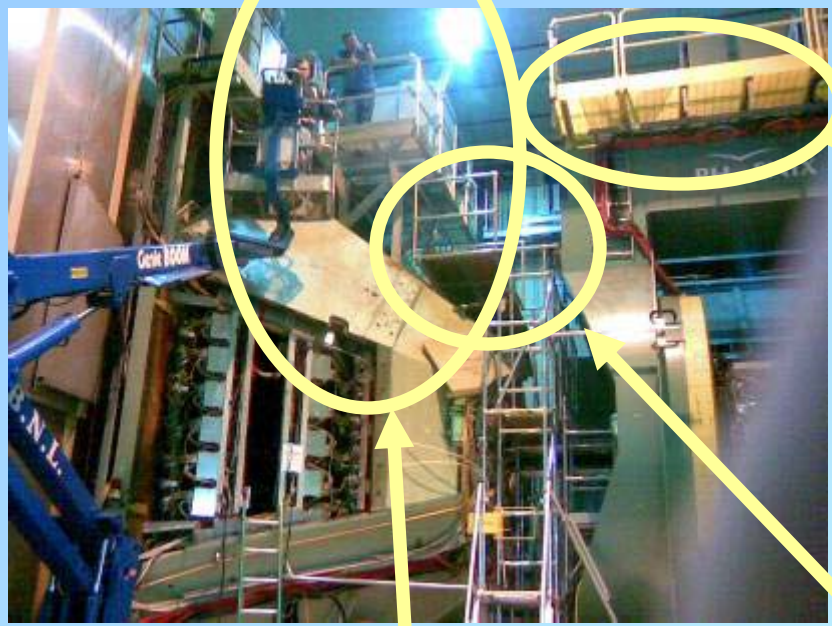
IR Housekeeping

Now that new platforms and bridge rework are completed, let's get the transparent floor barrier on the bridge back in place to prevent things falling through the grating, and place the same flooring on the 2 new rack platforms, and otherwise straighten things up on the bridge.

1008 Building Maintenance Issues

- Roof leak in utility bathroom at northwest corner behind tech offices.
- Roof leak over door between rack room and assembly hall.
- Trailer bathroom slop sink (for Custodians).
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- New duct heater (This item is in progress and should be completed soon)
- Improved Rack Room AC performance (This item has been addressed time and again but unsatisfactorily. Currently the AC fails periodically and is repaired only to fail again. On-condition maintenance is not adequate…an engineered solution is needed.)

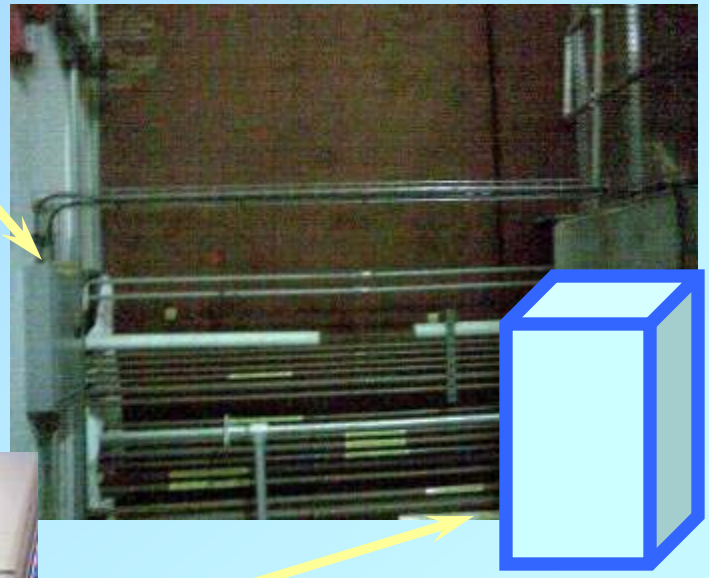
MuTrigger FEE South Rack



Bridge water manifolds have been reworked…need to be reinstalled

MuTrigger South Rack Platform & racks installed, power hooked up cabling and rack cooling in progress

Station 1 South Scaffold modified.. will remain in place until 12/12

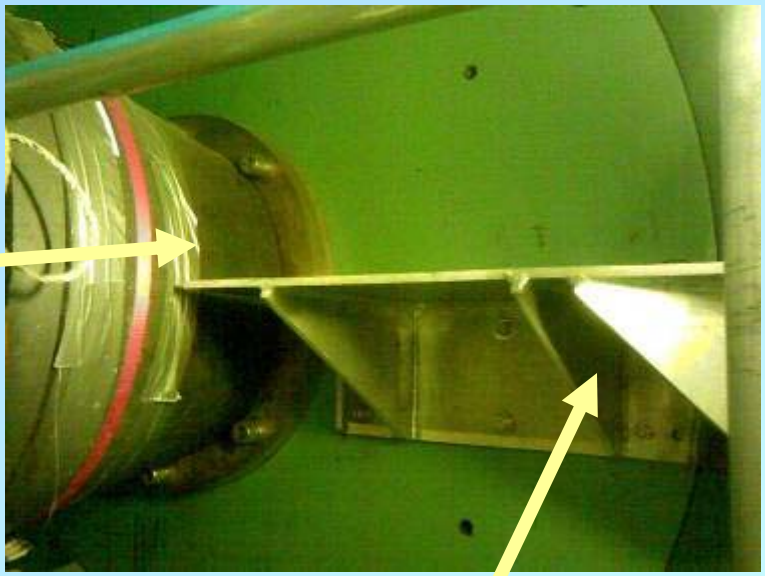


Rack ready waiting for shielding to be re-stacked which is waiting for crane to be re-powered

RPC3 Prototype Installation

RPC3 prototype: mechanical installation is complete; services (gas, signal, electric), and environmental control installation is complete

RPC Absorber

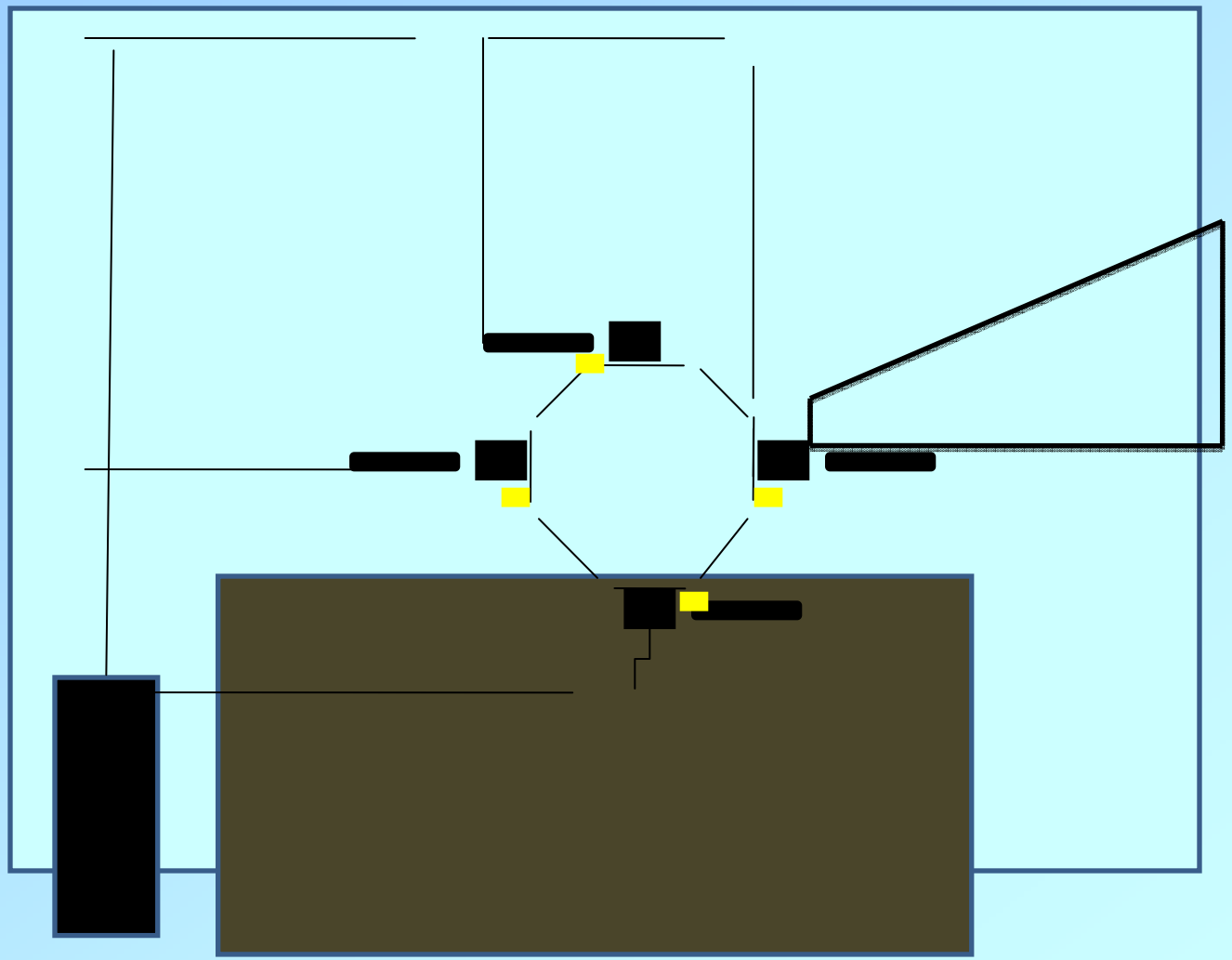


All Lead cut, painted and ready for installation

RPC3 Prototype Installation: Scintillators

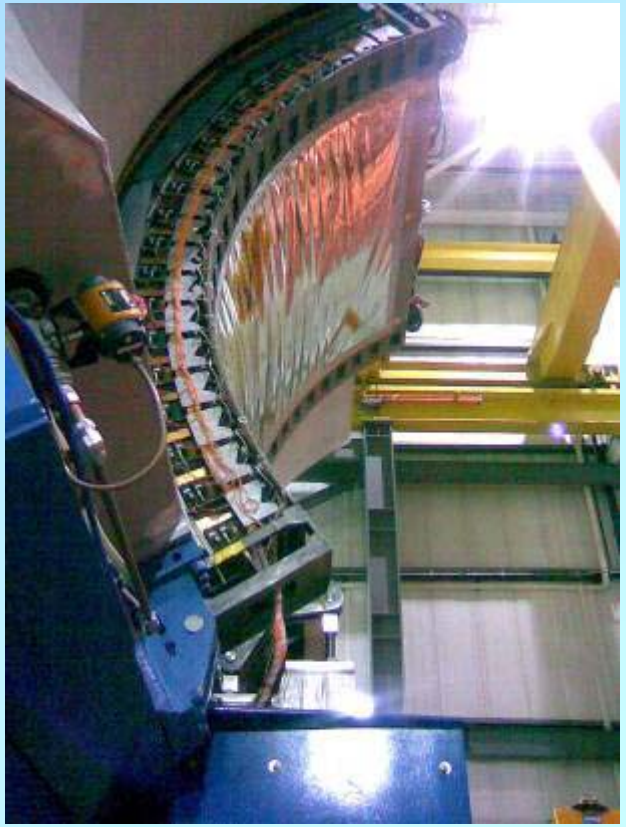
- 4 pairs of scintillation counters
- each pair consists of 2 ~1" thick scintillators; active area ~ 2" x 2" ; Length ~10" with phototube and shielding; light guide cylinder ~ 1" dia. With 1" dia PMT's; Weight is ~ 4 lb per pair.
- TLD's: Change and read weekly (quantity and location TBD)
- To be positioned in South tunnel uniformly distributed around the beam pipe at approximately 3, 6, 9 and 12 O'clock at a radially convenient location which overlaps the RPC3 prototype
- Z location is south of RPC3 as close as possible but at most 12" away (for the 3 O'clock pair, others to match z-position)
- Detectors require 2.5 kV to be run from IR.
- 16 channel signal, also to be run from IR
- Rack support is TBD

RPC3 Prototype scintillators

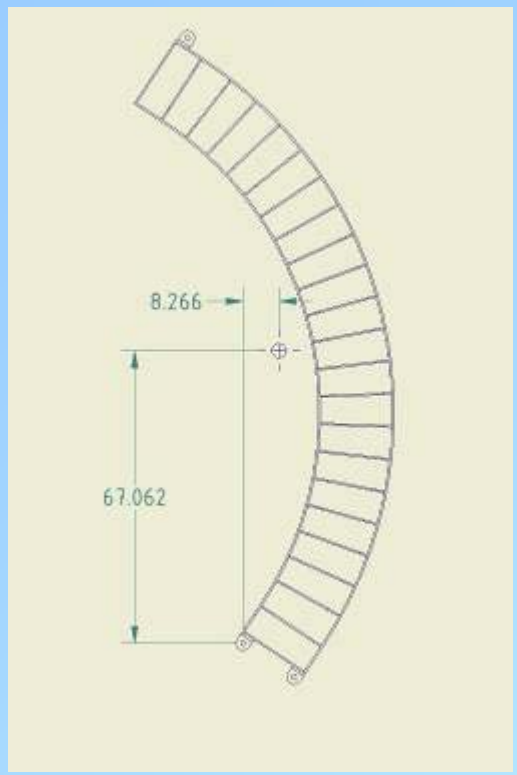


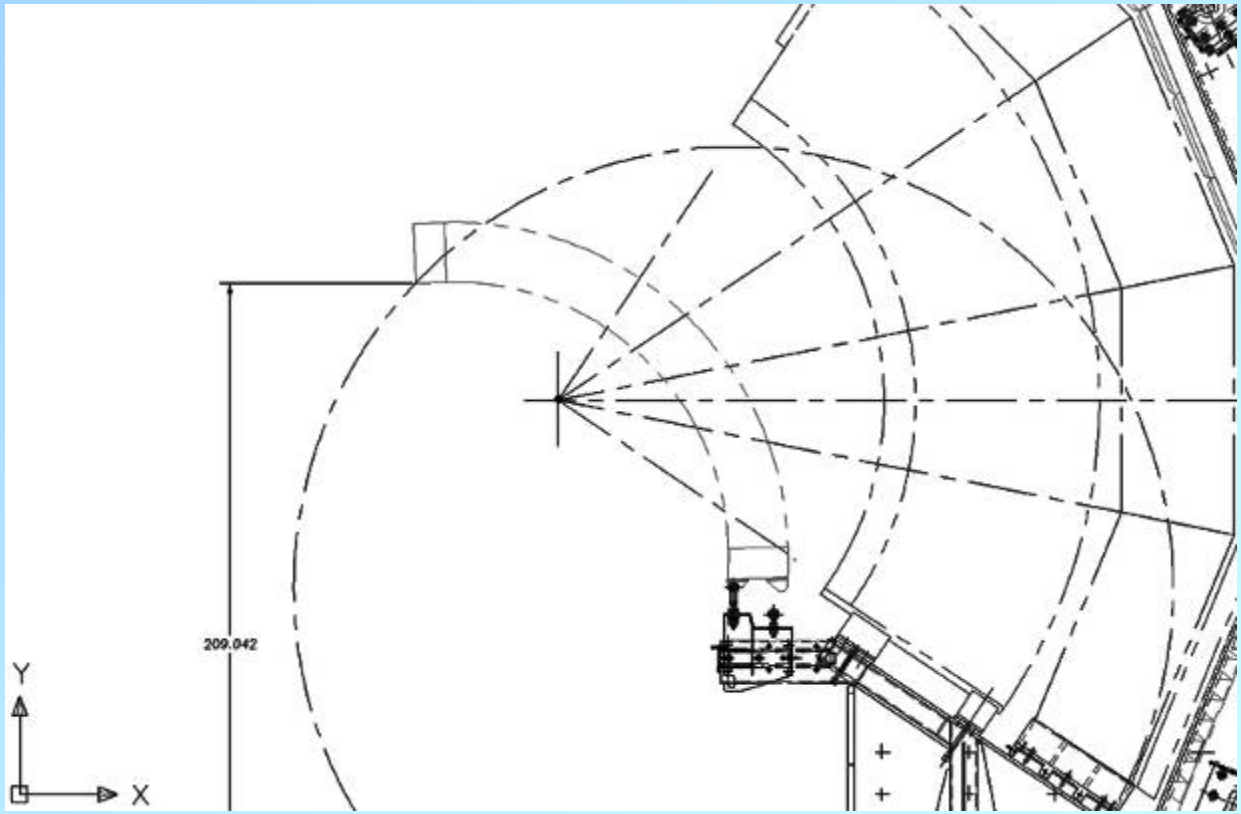
PC1 East Broken Wire Repair

Planning is in progress

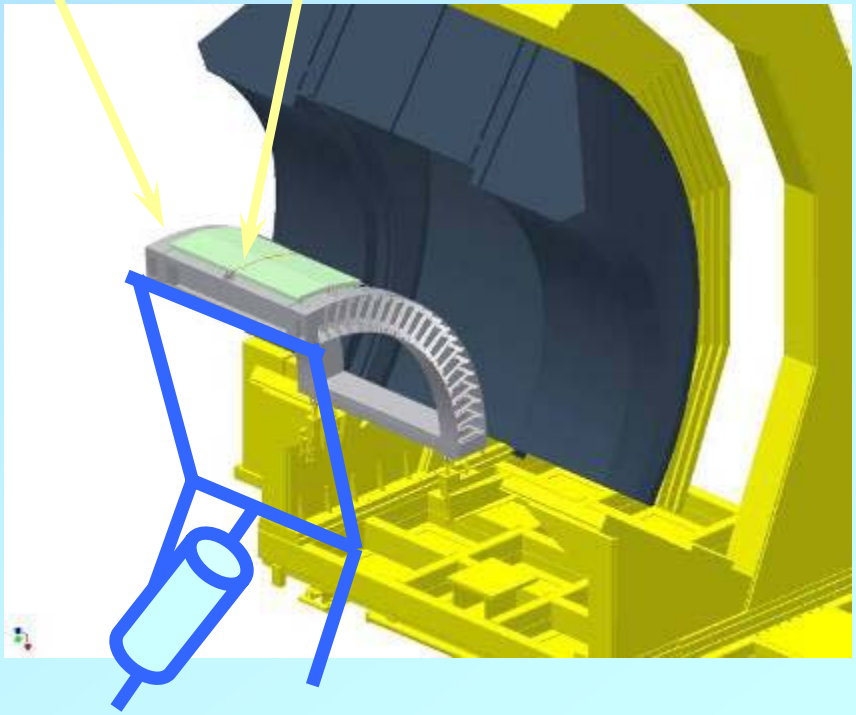


PC1 East Broken Wire Repair





PC1 East Broken Wire Repair



PC1 East Broken Wire Repair

PC1 East Spare in Bldg 510

HBD

HBD Installation Schedule:

West (Bill): 11/6 (Done)
East (Ted): 12/4 (Done)
Positioning, Cabling and commissioning to follow:

Next week HV tests: CF4 on non-recirc.

RPC Factory Support

RPC Factory Change in Scope

C-A ESRC Review next week (12/18)

Presenters:

Don: Introduction, revised layout, material handling and storage, burn-in test station mechanical design

Paul: Revised electrical plan; revised safety plan

Rob: Revised gas distribution plan

Starting point is existing documents: RPC Factory Work plan, PP-2.5.2.15-01, 02 & 03 (Gas system Ops, HV & LV Ops & Assembly & Testing Procs, respectively), PP-2.5.5.6-10 (Factory Blue Sheeting) and C-A OPM 3.16

RPC Factory Support

PHENIX




TENT








Technical Support 2008

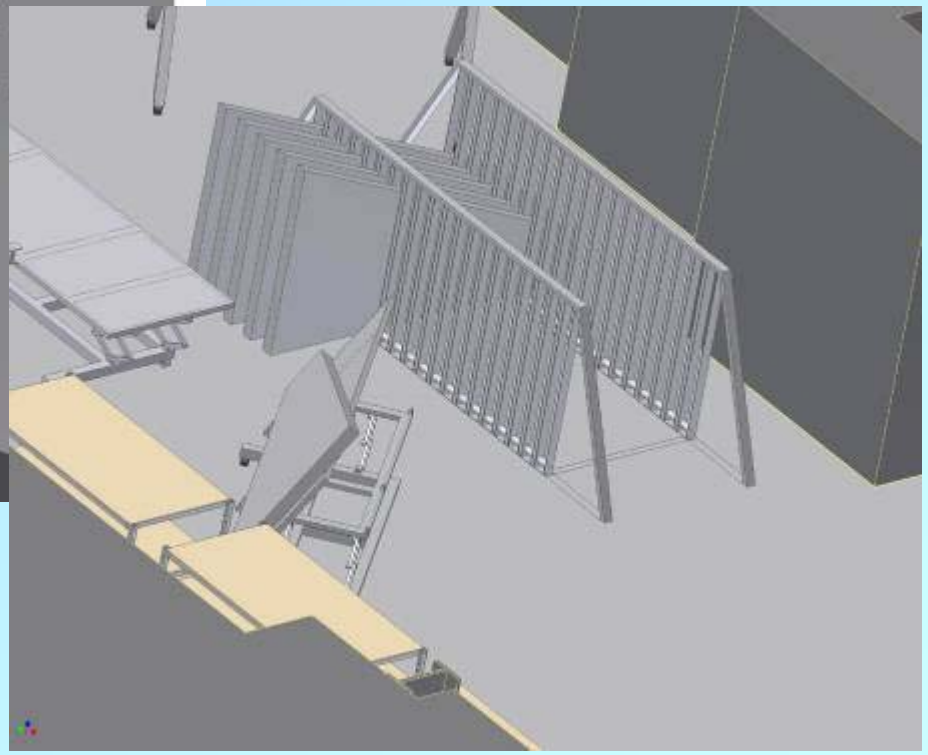
RPC Factory Support

TENT

Technical Support 2008

12/11/08

RPC Factory Support



Technical Support 2008

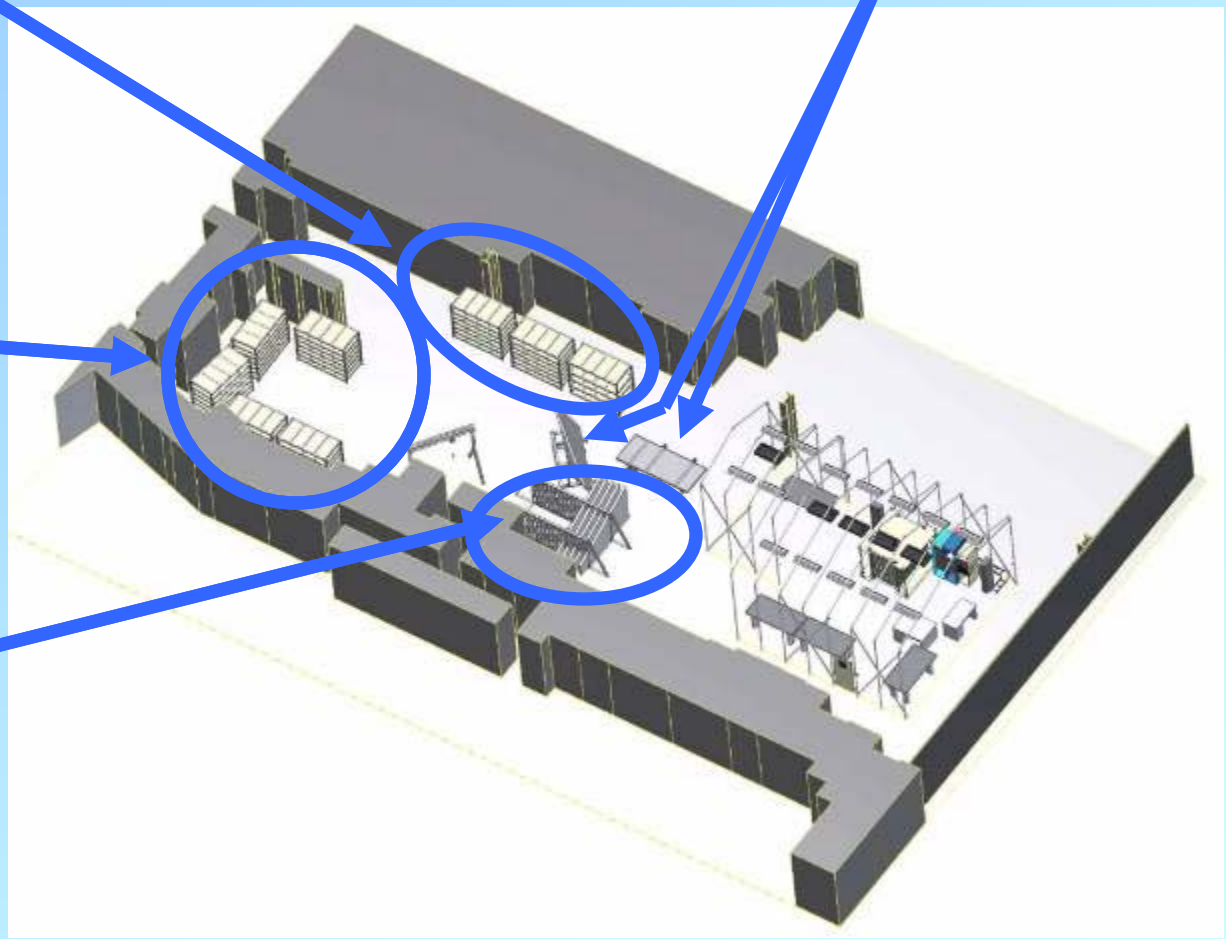
RPC Factory

Tilt Tables (2) for Assembly and Handling Gaps modules and ½-octants

Detail parts storage for Module and ½ octant structural parts

Module and Gap Storage with humidity Control

Burn-in test stand (bicycle rack)



Technical Support 2008

RPC Factory

Dark Current Test Stand under construction

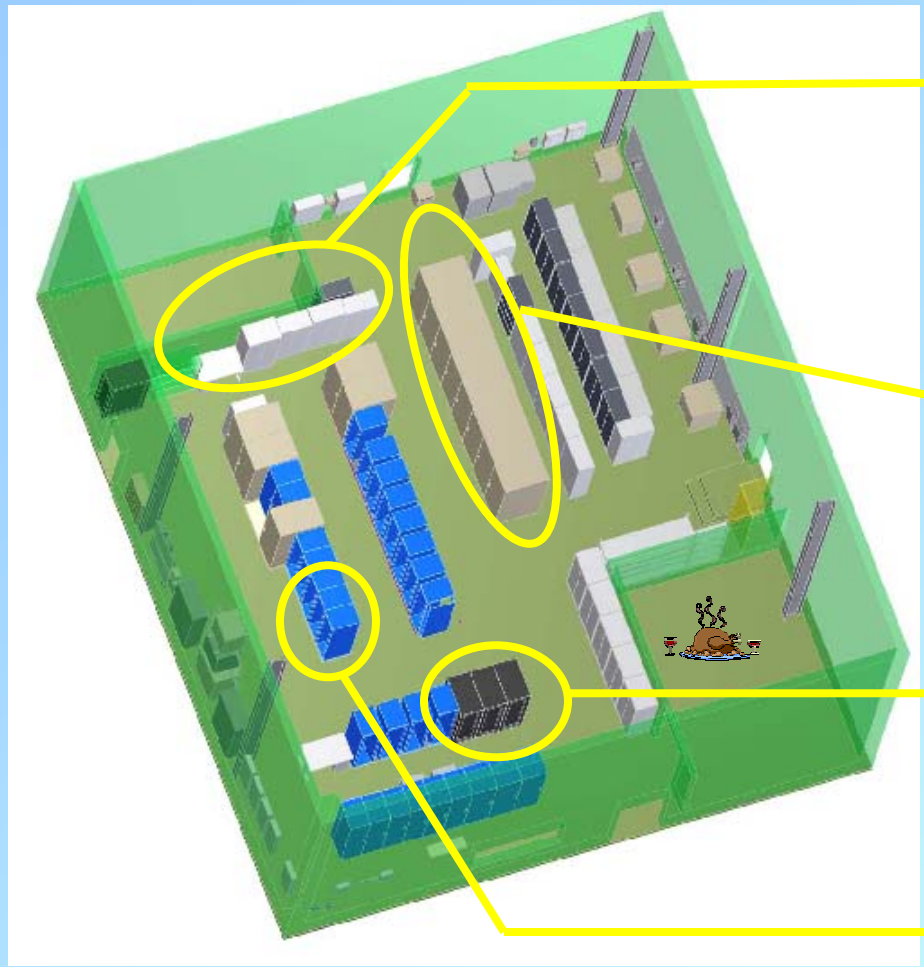
Also working on:

- a burn-in test stand for ½ octants

- additional storage for gaps modules and structural detail parts

- transport table/cart

Proposed Reorganization



Relocated file & storage cabinets, & desk

Added 2 DCM racks to east end of row 5 and 2 DCM racks to west end of row 5

Moved 2 large black racks from row 4 and added a third large black rack to row 2

Moved tall blue (open) rack from north end of row 2 to east end of row 3 and added another of the same to row 3

Scaffolding Crates

New Crates for Sta 2/3N scaffolds and Sta. 1 scaffolds are Done.

Removal of MMN scaffolding has begun

Safety, Security, etc.

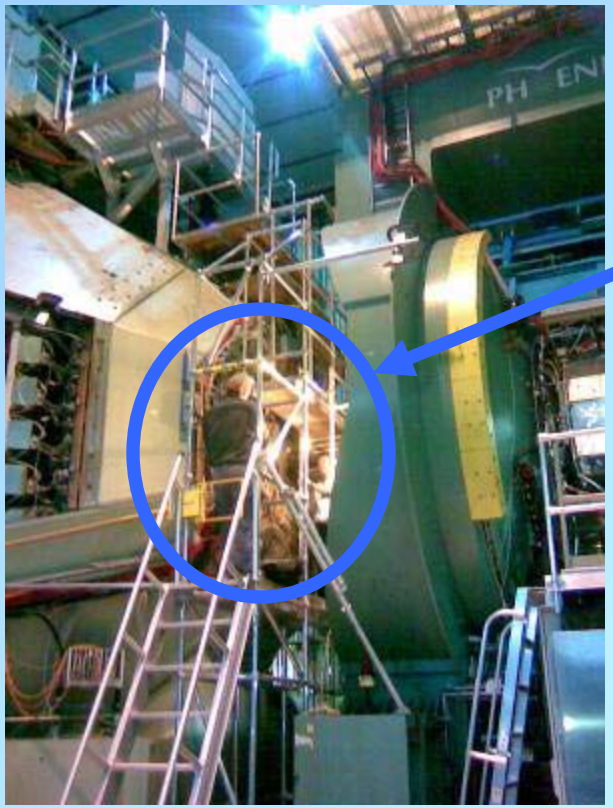
1. PHENIX Awareness Reminders:

- 2 person rule: noone is allowed to do any work in the IR alone.
- All work to be coordinated through PHENIX Work Control ordinators
- Safety shoes in the IR
- PHENIX techs operate all lifting equipment and manlifts including CM lift table
- Read and understand all work permits
- Consult PHENIX techs before using ladders and scaffolds load limits must be observed!

2. Holiday Decorations

- Keep Christmas trees well watered and away from fireplaces, space heaters and radiators.
- Use a sturdy, non-slip tree stand.
- Never block a doorway with a Christmas tree.
- Keep menorahs, kinaras or any other festive candles on a flat surface, and at least a foot from flammable items.
- Never leave a burning candle unattended.
- When possible, use battery-powered flameless "candles" instead of real ones.
- Always turn off decorative lights before leaving the house or going to sleep.

Where To Find PHENIX Engineering Info



Congratulations to Mickey Chiu who has been named as the recipient of a 2008 *Presidential Early Career Award for Scientists and Engineers,* seen here getting his picture taken by the lab photographer next to his MPC detector

Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm